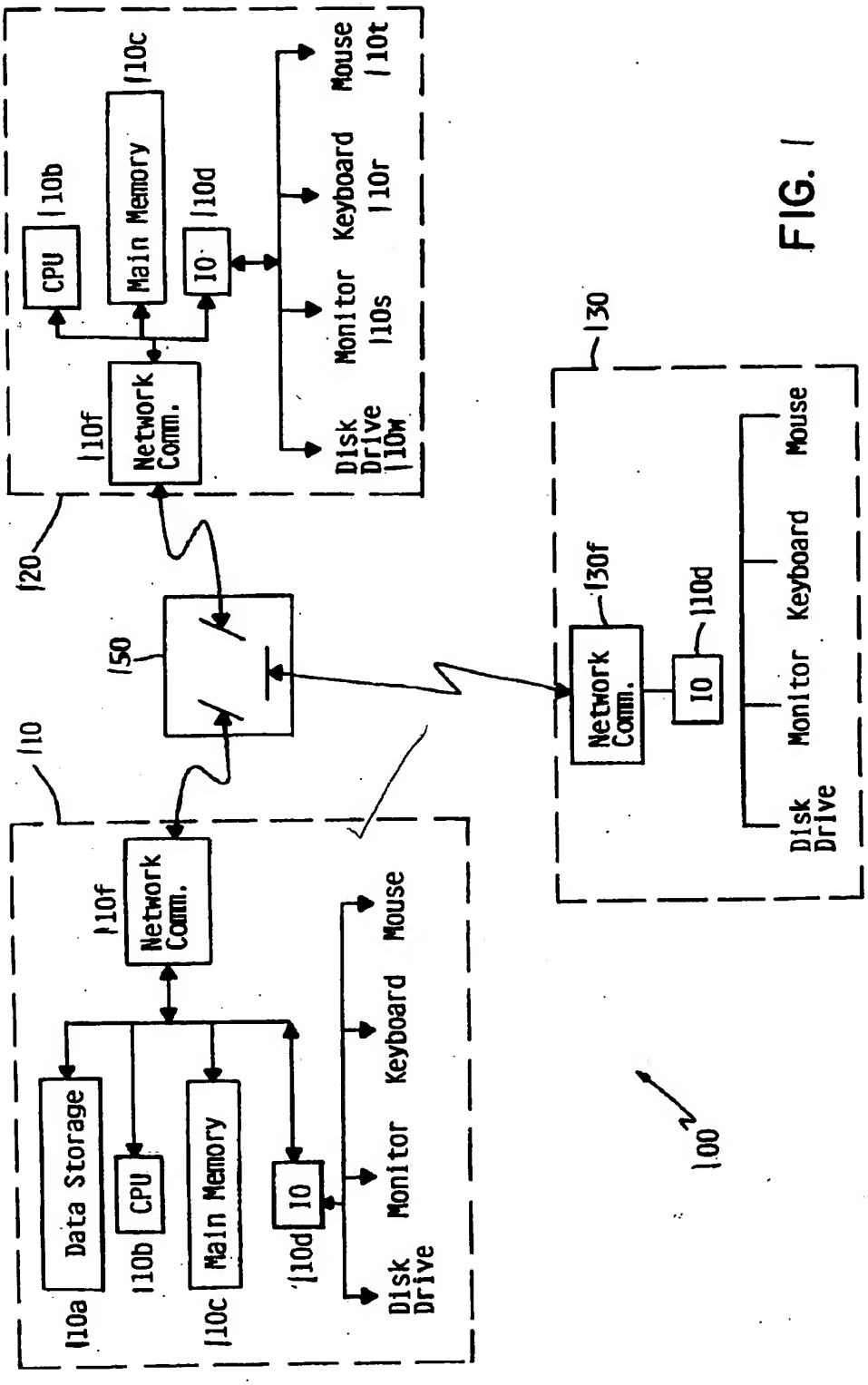
120
110
150
130
100
CPU
110b
Main Memory
110c
IO
110d
Network Comm.
110f
Monitor
110s
Keyboard
110r
Mouse
110t
Disk Drive
110w
Data Storage
110a
Network Comm.
130f
IO
110d
Monitor
Keyboard
Mouse
Disk Drive

FIG. 1

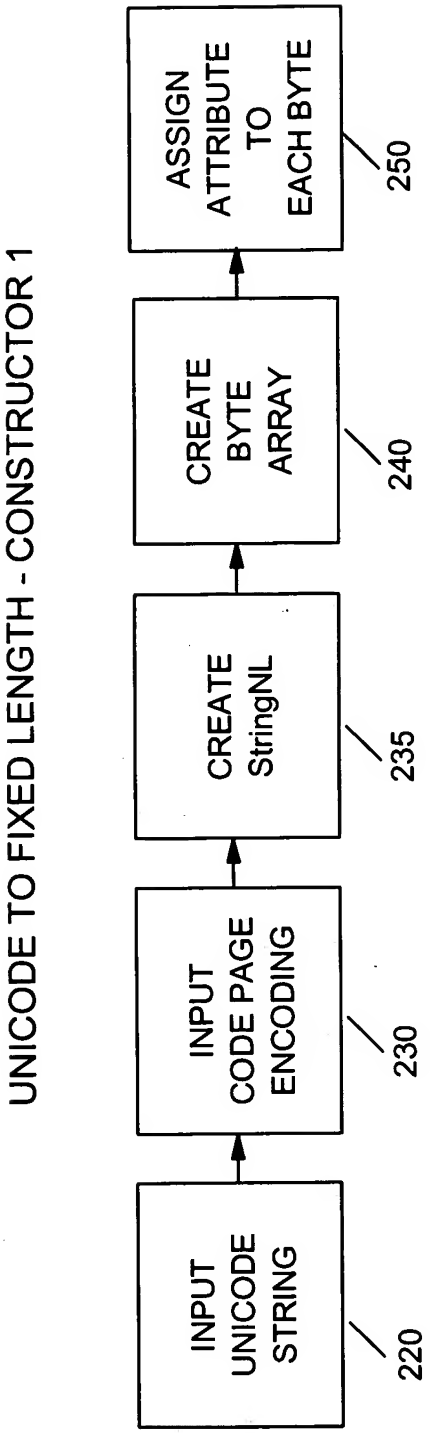

FIGURE 2A

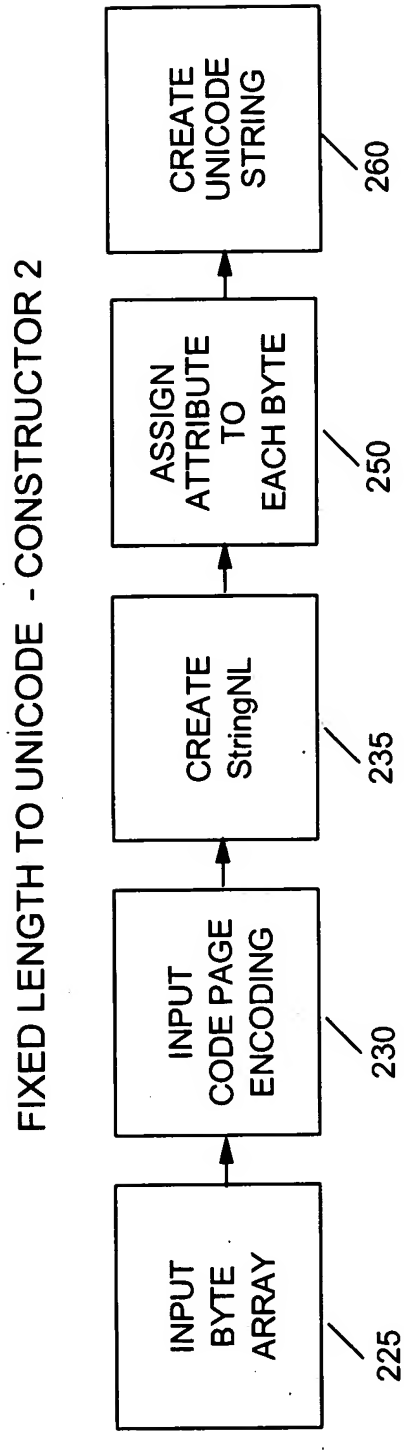

FIGURE 2B

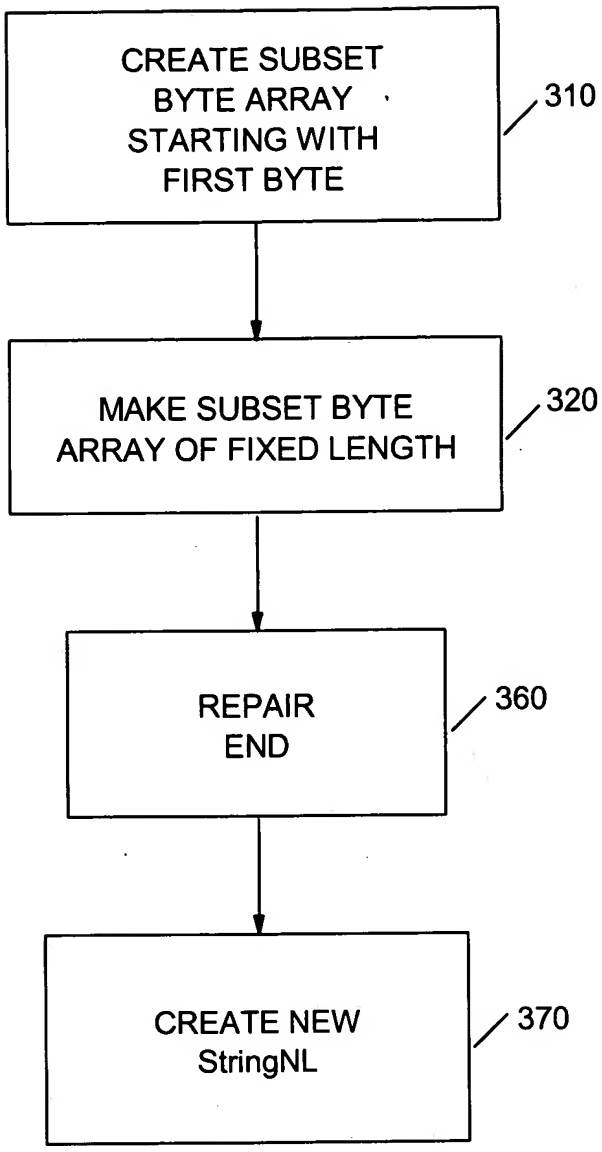
CREATE SUBSET BYTE ARRAY STARTING WITH FIRST BYTE
310
MAKE SUBSET BYTE ARRAY OF FIXED LENGTH
320
REPAIR END
360
CREATE NEW StringNL
370

FIGURE 3

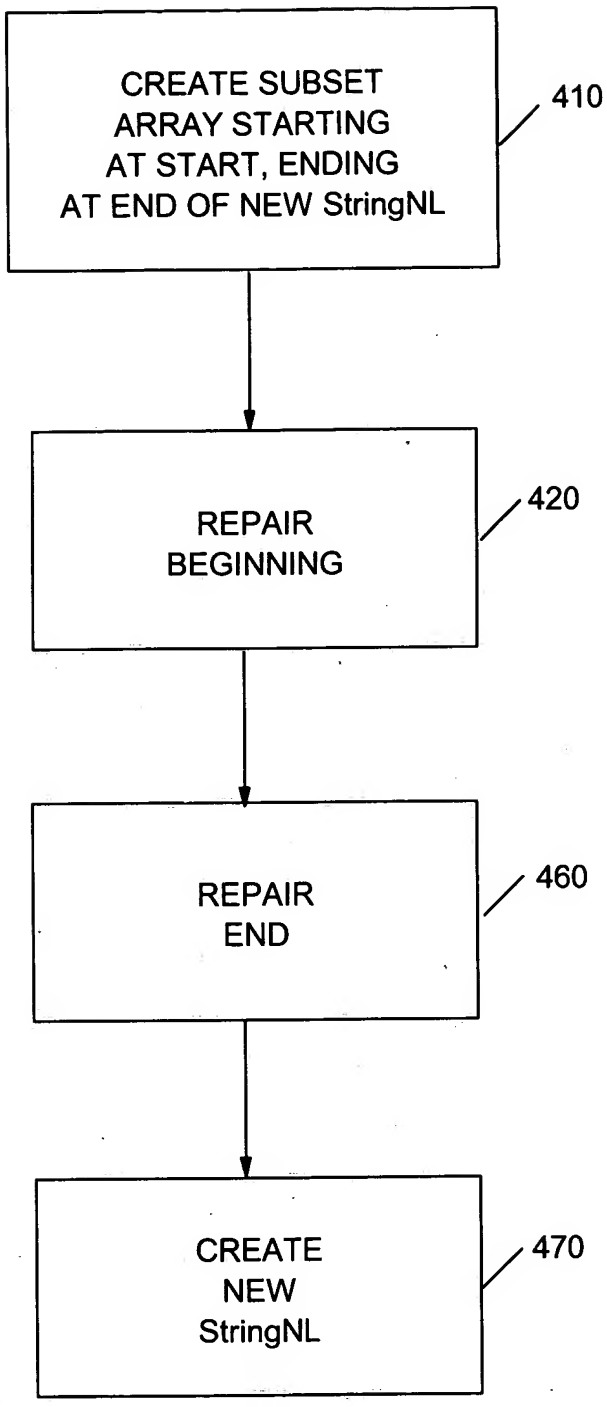
CREATE SUBSET ARRAY STARTING AT START, ENDING AT END OF NEW StringNL
410
REPAIR BEGINNING
420
REPAIR END
460
CREATE NEW StringNL
470

FIGURE 4

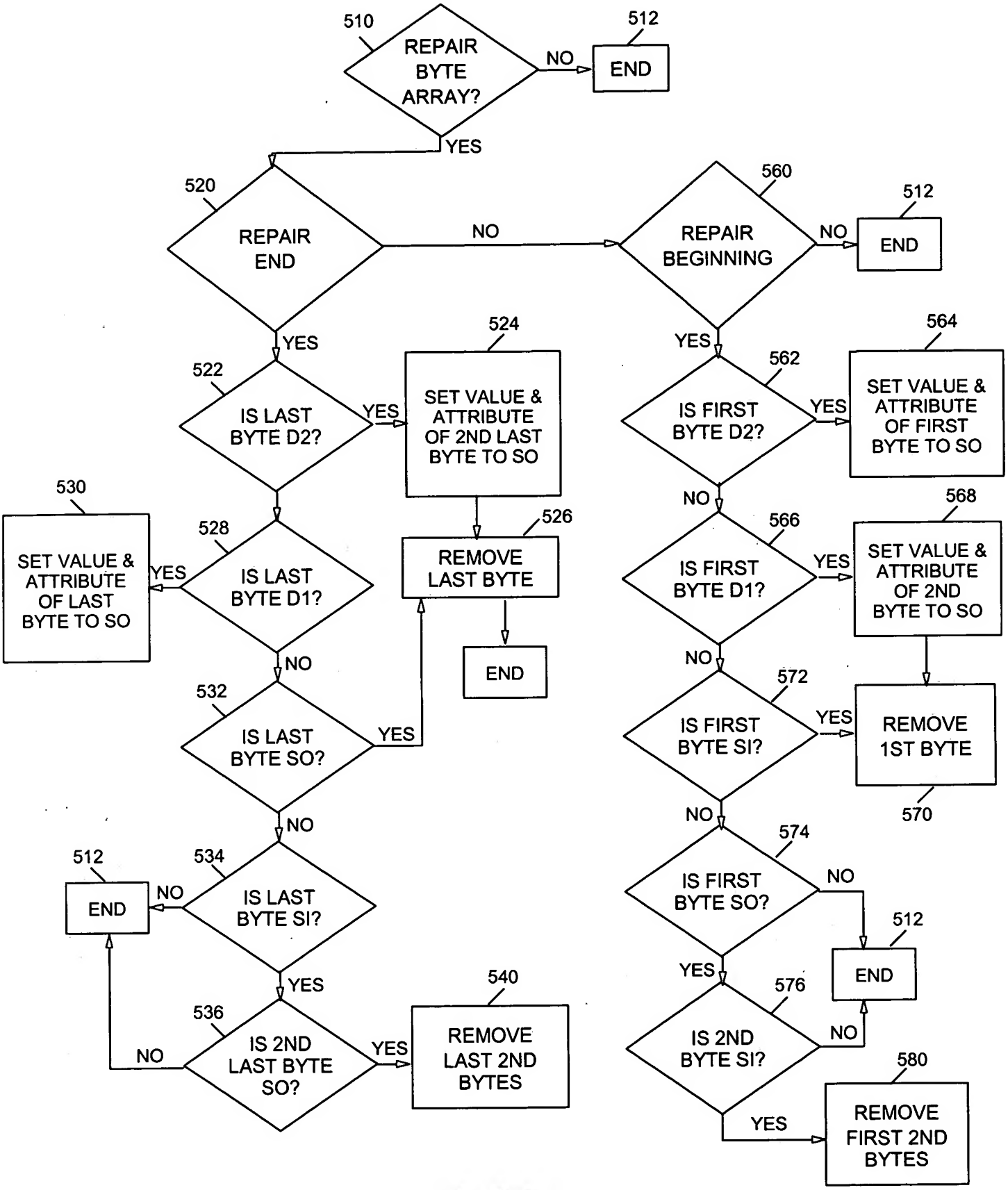
510
REPAIR BYTE ARRAY?
NO
512
END
YES
520
REPAIR END
NO
560
REPAIR BEGINNING
NO
512
END
YES
522
IS LAST BYTE D2?
YES
524
SET VALUE & ATTRIBUTE OF 2ND LAST BYTE TO SO
526
REMOVE LAST BYTE
END
530
SET VALUE & ATTRIBUTE OF LAST BYTE TO SO
528
IS LAST BYTE D1?
YES
NO
532
IS LAST BYTE SO?
YES
NO
512
END
534
IS LAST BYTE SI?
NO
YES
536
IS 2ND LAST BYTE SO?
NO
YES
540
REMOVE LAST 2ND BYTES
YES
562
IS FIRST BYTE D2?
YES
564
SET VALUE & ATTRIBUTE OF FIRST BYTE TO SO
NO
566
IS FIRST BYTE D1?
YES
568
SET VALUE & ATTRIBUTE OF 2ND BYTE TO SO
NO
572
IS FIRST BYTE SI?
YES
REMOVE 1ST BYTE
570
NO
574
IS FIRST BYTE SO?
NO
512
END
YES
576
IS 2ND BYTE SI?
NO
YES
580
REMOVE FIRST 2ND BYTES

FIGURE 5

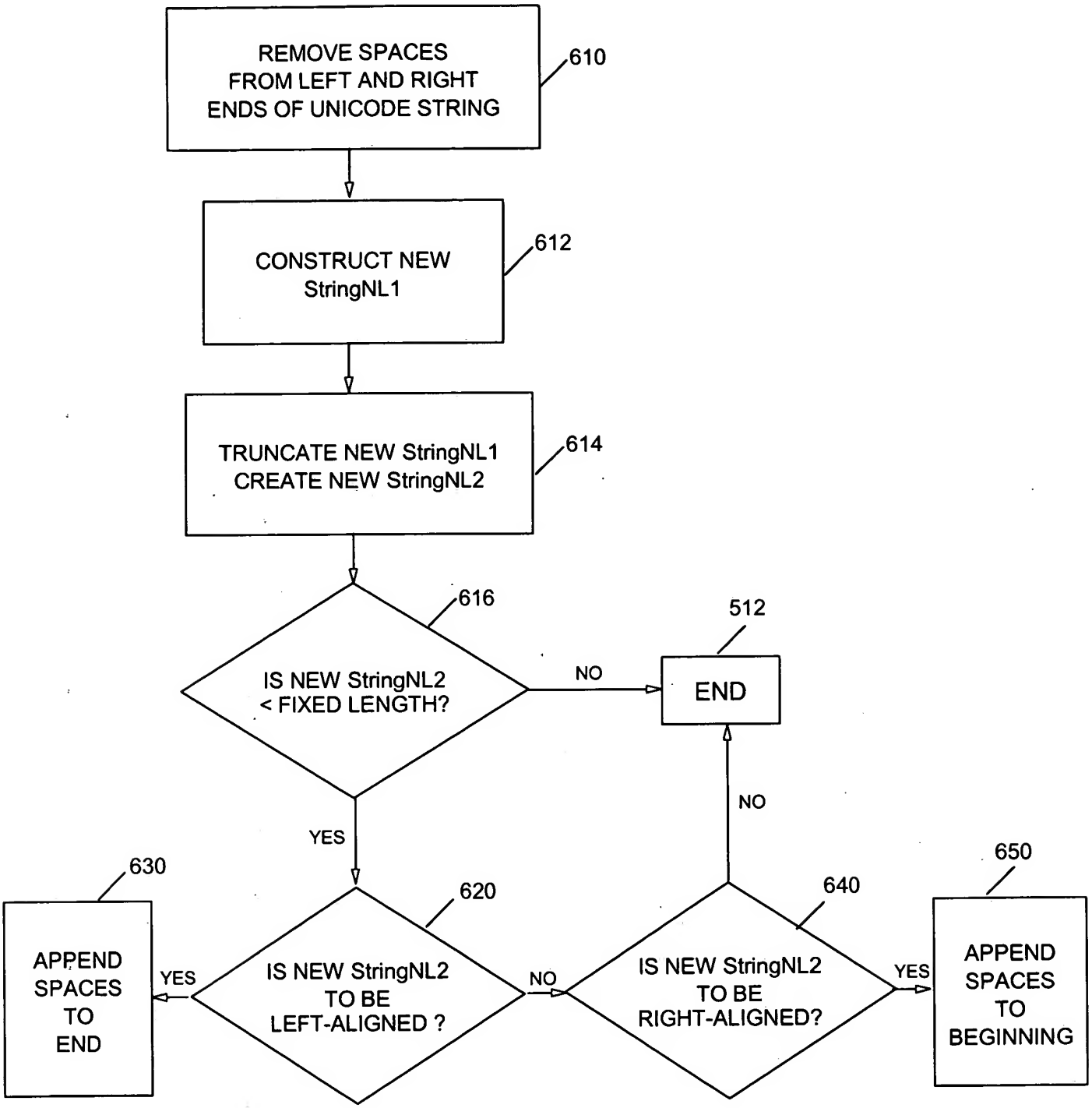
REMOVE SPACES FROM LEFT AND RIGHT ENDS OF UNICODE STRING
610
CONSTRUCT NEW StringNL1
612
TRUNCATE NEW StringNL1 CREATE NEW StringNL2
614
IS NEW StringNL2 < FIXED LENGTH?
616
NO
END
512
YES
NO
APPEND SPACES TO END
630
IS NEW StringNL2 TO BE LEFT-ALIGNED ?
620
YES
NO
IS NEW StringNL2 TO BE RIGHT-ALIGNED?
640
YES
APPEND SPACES TO BEGINNING
650

FIGURE 6

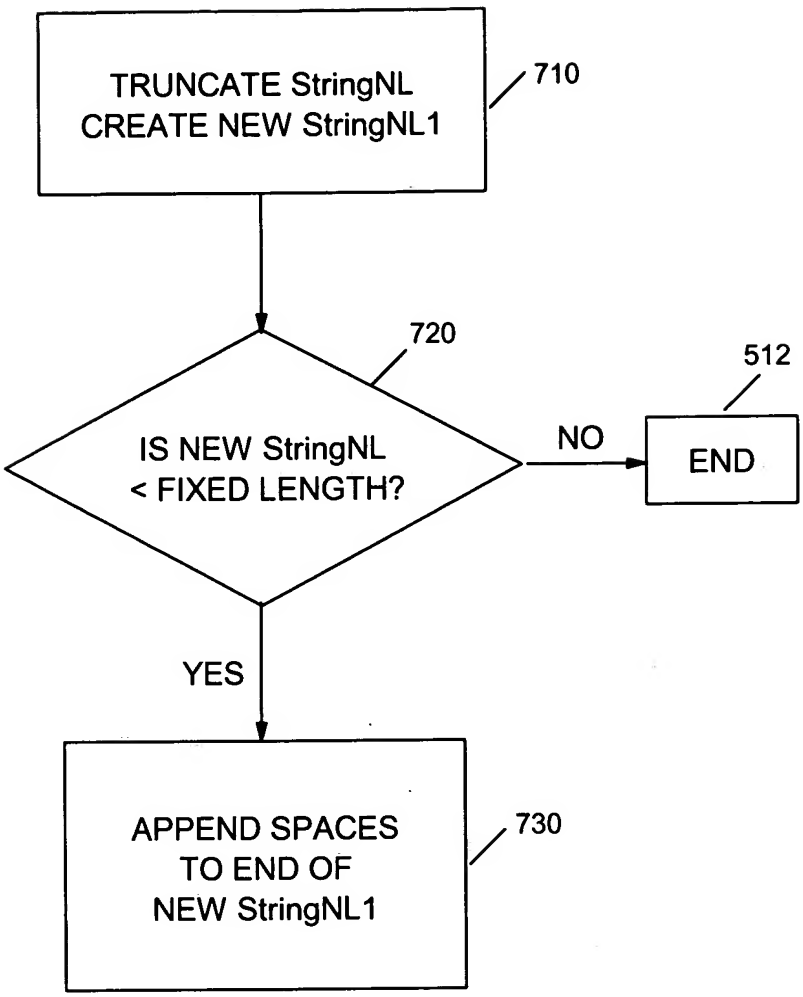
TRUNCATE StringNL
CREATE NEW StringNL1
710
720
IS NEW StringNL
< FIXED LENGTH?
NO
512
END
YES
APPEND SPACES
TO END OF
NEW StringNL1
730

FIGURE 7

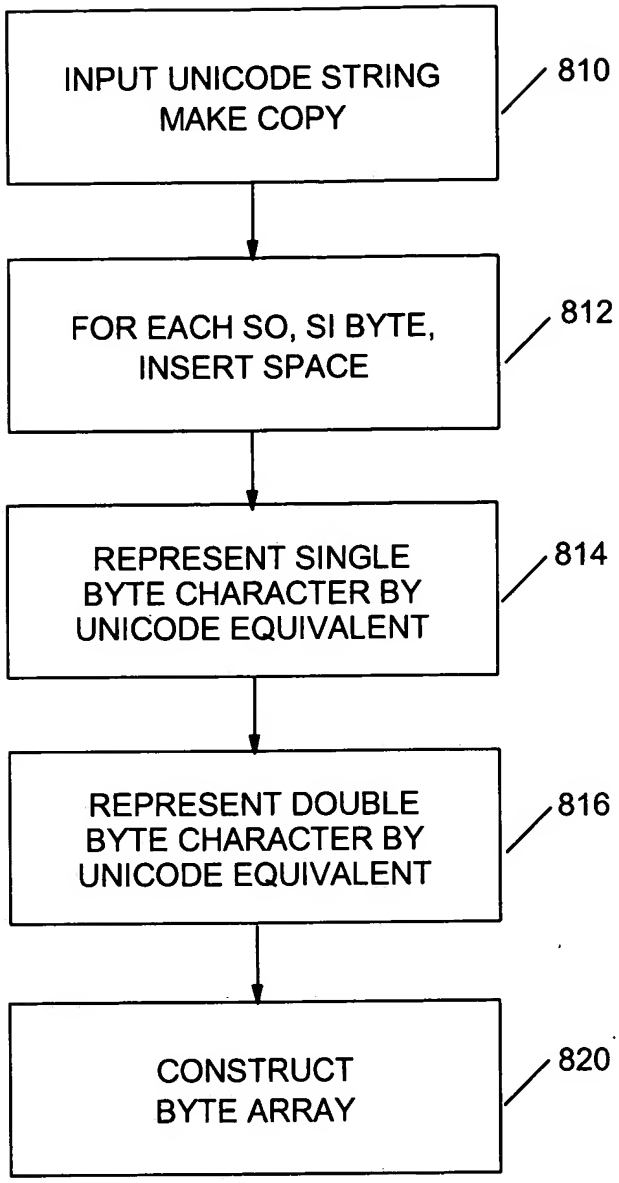
INPUT UNICODE STRING
MAKE COPY
810
FOR EACH SO, SI BYTE,
INSERT SPACE
812
REPRESENT SINGLE
BYTE CHARACTER BY
UNICODE EQUIVALENT
814
REPRESENT DOUBLE
BYTE CHARACTER BY
UNICODE EQUIVALENT
816
CONSTRUCT
BYTE ARRAY
820

FIGURE 8

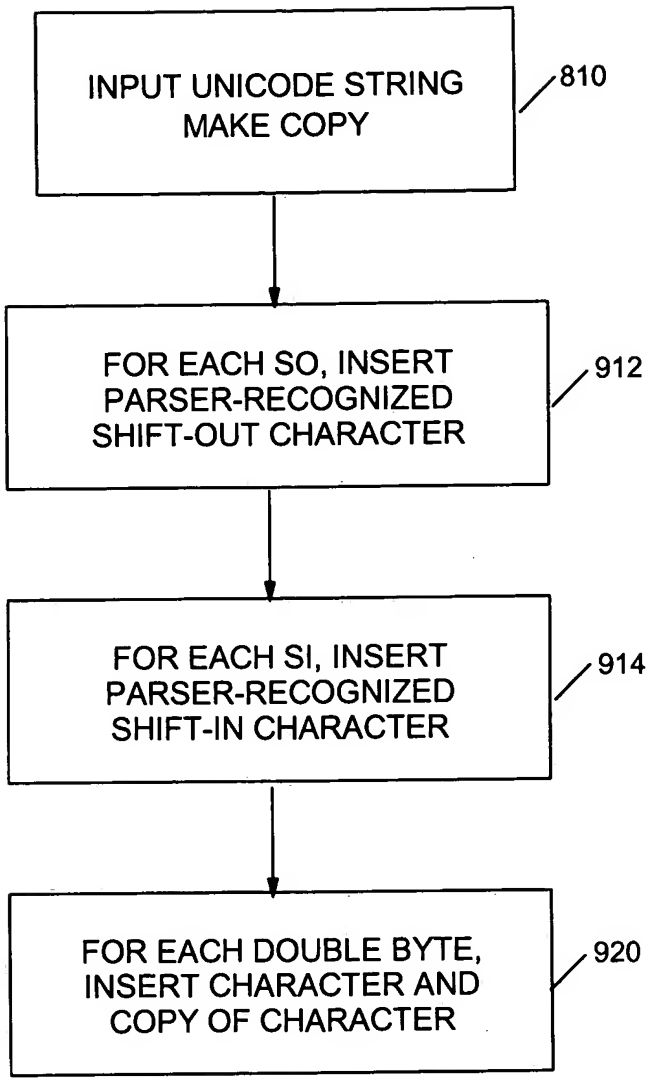
INPUT UNICODE STRING
MAKE COPY
810
FOR EACH SO, INSERT
PARSER-RECOGNIZED
SHIFT-OUT CHARACTER
912
FOR EACH SI, INSERT
PARSER-RECOGNIZED
SHIFT-IN CHARACTER
914
FOR EACH DOUBLE BYTE,
INSERT CHARACTER AND
COPY OF CHARACTER
920

FIGURE 9